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| 10/087,513      | 03/01/2002  | Charles A. Butterfield JR. | HES 2000-IP-000648U1 | 4078             |

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CRAIG W. RODDY  
HALLIBURTON ENERGY SERVICES  
P.O. BOX 1431  
DUNCAN, OK 73536-0440

EXAMINER

GAY, JENNIFER HAWKINS

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3672

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/087,513

Applicant(s)

BUTTERFIELD, CHARLES A.

Examiner

Jennifer H Gay

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 22 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 and 30-40 is/are allowed.
- 6) ☒ Claim(s) 11-19 and 21-28 is/are rejected.
- 7) ☒ Claim(s) 20 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 112. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 11, 12, 15-19, and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley (US 4,809,776) in view of Callihan et al. (US 4,436,151).

*Regarding claims 11, 12, and 21:* Bradley discloses a wellbore tool for sealing areas within a wellbore tubular. The tool includes the following features:

- A running tool (see Figure 1) including an axially extending mandrel (82) with a central flow passage.
- A first wiper plug (232) axially movable within the wellbore tubular and carried by the mandrel. The first plug includes a first outer seal (248) for providing a sliding, sealing engagement with the wellbore tubular.
- A first release mechanism (230) that is responsive to the movement of a first closure mechanism (256) to permit the first plug to be axially displaced free of the mandrel (see Figure 6).
- A second wiper plug (150) axially movable within the tubular and carried by the mandrel. The second plug includes a second outer seal (168) for providing a sliding, sealing engagement with the tubular.

- A second release mechanism (140) that is responsive to the movement of a second closure mechanism (264) to permit the first plug to be axially displaced and released from the mandrel.

Bradley et al. discloses all of the limitations of the above claims except for a first one-way check valve for sealing a central opening through the plugs when the plugs and seals are displaced from the mandrel.

In Figure 3B, Callihan et al. teaches a one-way check valve (53) for sealing the central opening of a plug when the plug, and its seal, are displaced down the wellbore tubular.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have included the one-way check valve of Callihan et al. on the plugs of Bradley in order to have allowed the plug to be displaced down the wellbore without fluids located below the plug being displaced up through the plug.

Applicant is reminded that “[i]n considering in the disclosure of a reference, it is proper to take into account not only specific teachings of a reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom.” *In re Pedra*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

*Regarding claims 15 and 26:* The one-way check valve of Callihan et al. is a flapper valve.

*Regarding claims 16, 17, and 27:* The flapper valve of Callihan et al. would include a seal on the valve seat as well as a seal on the flapper in order to have formed a fluid tight seal thus preventing fluid flow therethrough. Further, when the flapper valve was in its closed position, the seals would be protected from the wellbore environment.

*Regarding claims 18 and 28:* The release mechanism of Bradley includes a movable sleeve (210) and a shear screw (230).

*Regarding claim 19:* The release mechanisms and the closure mechanisms cooperate to form a pressure differential across the plugs thus providing the force necessary to move the plugs down the wellbore.

*Regarding claim 24:* The closure mechanisms of Bradley are either a ball or a dart.

*Regarding claim 22:* As seen in Figure 6, the first plug further includes a flow passage reopening device (204).

*Regarding claim 23:* As recited in column 6, lines 35-60, the wiper plug has a body made of plastic surrounded by a jacket of elastomeric material.

*Regarding claim 25:* The closure mechanism of the first plug passes through the second plug without affecting it.

4. Claims 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bradley (US 4,809,776) in view of Callihan et al. (US 4,436,151) as applied to claim 11 above, and further in view of McMullin (US 4,624,312).

Bradley and Callihan et al. disclose all of the limitations of the above claims except for retrieving the mandrel once the plug has been displaced. In column 7, lines 9-11, McMullin teaches the removal of the mandrel of an upper plug after the plug has been displaced. It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have retrieved the mandrel of Bradley in view of Callihan et al. as taught by McMullin in order to have reduced the material that must be drilled out once the cementing operation was completed.

#### ***Allowable Subject Matter***

5. Claims 1-10 and 30-40 are allowed.
6. Claims 20 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7. In view of applicant's amendment, the objections to the drawings have been withdrawn except that indicated above. The examiner notes that reference character "112" was not added to Figure 1 as applicant has indicated.

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8. In response to applicant's argument that Bradley does not teach a first closure mechanism that moves from a closed to an open position, the examiner agrees.

9. Applicant's arguments filed 22 October 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that that Bradley does not teach a first flow passageway closure device that is separate from the release mechanism because ball "256" is both the closure device and the release mechanism, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The examiner notes that Callahan was used to teach the first closure device. Further, applicant is arguing Bradley as a 35 USC 102 reference when in this instance it was applied under 35 USC 103.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine Bradley and Callahan would be have allowed the plug to be displaced down the wellbore without fluids located below the plug being displaced up through the plug. Further, applicant is reminded that "[i]n considering in the disclosure of a reference, it is proper to take into account not only specific teachings of a reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." *In re Pedra*, 401 F.2d 825, 826, 159 USPQ 342, 344 (CCPA 1968).

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**Conclusion**

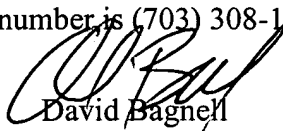
10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

  
David Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

JHG   
November 20, 2003